## REMARKS

The present Amendment is in response to the Office Action having a mailing date of

August 25, 2004. Claims 1-27 remain pending in the present application.

Claim Rejections-35 USC 102

The Examiner states,

Claims 1-3, 9, 10, 12, 13, 16, 17, 19, 20, 23 and 27 are rejected under 35 U.S.C. 102(a) as being anticipated by applicants admitted prior art, (AAPA), in the background section of the instant application. The paragraph and line numbers of the PGPUB application are used to cite the reference.

As per claim 1, AAPA discloses a computer system for performing an action on a target model, wherein the target model is associated with a notify model, the target model comprising target objects and the notify model comprising notify objects (10:1-11:9, "It is known to those skilled in the art that programming code can be written, especially in object-oriented languages, to receive event notifications (i.e., the programming code is notified (to perform an action) when certain changes occur). Depending on the context, both source models and object models can either a notify model, or a target model.... (for example), a file in the source model is changed and an object model is modified in response to the file change. In this first exemplary scenario the source model is the notify model, and the object model is the target model"), the computer system comprising:

-a model map for mapping the notify objects of the notify model to associated target objects in the target model (11:5-9, "(for example), a file in the source model is changed and an object model is (automatically) modified in response to the file change. In this first exemplary scenario the source model is the notify model, and the object model is the target model", and the notify model must be mapped to the target model in order for the cited situation to occur).

-an action operator for performing the action on one or more target objects in the target model in response to a modification of a selected notify object (11:5-9, "a file in the source model is changed and an object model is modified, (using an action operator), in response to the file change. In this first exemplary scenario the source model is the notify model, and the object model is the target model," and, 12:1-3, 'a single instance of a notify model may consist of several models. Similarly, an instance of a target model may also consist of several models")

-wherein the action operator performs the action on one or more identified target objects being determined with reference to the model map (11:5-9, "(for example), a file in the source model is changed and an object model is (automatically) modified, (using an action operator), in response to the file change. In this first exemplary scenario the source model is the notify model, and the object model is the target model", and the notify models must be mapped to the target models in order for the cited situation to occur).

As per claim 2, the rejection of claim 1 is incorporated and further, AAPA discloses that the notify model is a model of an object in an object oriented computer language and wherein the

target model is source code associated with the object (11:7-9, "In this first exemplary scenario the source model is the notify model, and the object model is the target model").

As per claim 3, the rejection of claim 1 is incorporated and further, AAPA discloses means for generating an event notification signal when the selected notify object is modified, wherein the action operator performs the action responsive to receipt of the event notification signal (10:1-11:9, "It is known to those skilled in the art that programming code can be written, especially in object-oriented languages, to receive event notifications (i.e., the programming code is notified (to perform an action, using the action operator) when certain changes occur)").

As per claims 9, 10, 12, 13, 16, 17, 19, 20, 23, and 27, AAPA also discloses such claimed limitations as addressed in claims 1-3 above.

Claim Rejections-35 USC 103

The Examiner states,

5.      Claims 4-8, 11, 14, 15, 18, 21, 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicants admitted prior art, (AAPA), in the background section of the instant application in view of Atkinson et al., (Atkinson), U.S. Patent no. 5,613,124.

As per claim 4, the rejection of claim 1 is incorporated and further, AAPA doesn't explicitly disclose that the model map is one of a lookup table and a database.

However, Atkinson, in an analogous environment, discloses that the model map is one of a lookup table and a database (col. 3:36-39, "The virtual function table (i.e., lookup table) contains an entry (which maps a relationship) for each virtual function member defined for the object. Each entry contains a reference to the code that implements the corresponding function member").

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Atkinson into the system of AAPA to have the model map as a lookup table or a database. The modification would have been obvious because one of ordinary skill in the art would want to use the well known lookup table or database in order to store and retrieve data, involved in complex relationships, in an organized and efficient fashion.

As per claim 5, the rejection of claim 4 is incorporated and further, AAPA doesn't explicitly disclose that the model map maps portions of the notify objects to associated portions of the target objects.

However, Atkinson, in an analogous environment, discloses that the model map maps portions of the notify objects to associated portions of the target objects (col. 33:31-33, "information that indicates which portion of the object is to be used for generating (the) portion of the presentation data", additionally, the AAPA and Atkinson references are directed toward object oriented technologies, wherein separating objects into their constituent parts, maintaining complex relationships involving objects and their constituent parts, and modification and the propagation of modifications involving objects and their constituent parts (without affecting the rest of the application) are common, well known techniques).

Therefore, it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Atkinson into the system of AAPA to have a model map that maps portions of the notify objects to associated portions of the target objects. The modification would have been obvious because one of ordinary skill in the art, at the time the invention was made, to incorporate the teachings of Atkinson into the system of AAPA to have a model map that maps portions of the notify objects to associated portions of the target objects. The modification would have been obvious because one of ordinary skill in the art would want to exploit the numerous advantages of object oriented technologies (e.g. minimizing the time or coding effort required to produce an application relying on the notify and target object relationship).

As per claim 6, the rejection of claim 5 is incorporated and further, AAPA discloses that the action performed by the action operator is performed on the identified portions of the target objects in the target model, the identified portions of the target object being determined with reference to the model map (11:5-9, "(for example), a file in the source model is changed and an object model is modified, (using an action operator), in response to the file change. In this first exemplary scenario the source model is the notify model, and the object model is the target model", and the portion of the notify model must be mapped to the portion of the target model in order for the cited situation to occur, additionally, the AAPA reference is directed toward object oriented technologies, wherein separating objects into their constituent parts, maintaining complex relationships involving objects and their constituent parts, and modification and the propagation of modifications involving objects and their constituent parts (without affecting the rest of the application) are common, well known techniques.

As per claim 7, the rejection of claim 6 is incorporated and further, AAPA discloses that the notify model is a model of an object in an object oriented language wherein the target object is source code (11:11-12, "In this second exemplary scenario the object model is the notify model, and the source model is the target model").

As per claim 8, the rejection of claim 7 is incorporated and further, AAPA discloses that the action performed is a source code validation (18:1-3, "Presently, when a change in a notify model is completed, testing of the model (e.g., validating source code or the EJB in the examples described above, respectively) is (the action that is) conducted").

As per claims 11, 14, 18 and 21, the AAPA/Atkinson combination also discloses such claimed limitations as addressed in claim 4 above.

As per claims 15, 22 and 24-26 the AAPA/Atkinson combination also discloses such claimed limitations as addressed in claim 8 above.

Applicant respectfully disagrees with the rejections. In the present invention, method and system aspects for incremental actions relating to notify and target models are described. In a preferred embodiment, a target model includes target objects and a notify model includes notify objects. The system and method include a model map for mapping each of the notify objects to an associated target object, and an action operator for performing an action on one or more target objects in the target model in response to a modification of a selected notify object. In the system

and method, the action operator performs the action on one or more identified target objects associated with the modified selected notify object, the one or more identified target objects being determined with reference to the model map.

By utilizing the present invention, only the objects in the target model affected by the changes in the notify model are identified. Thus, the action (e.g., a validation check) is performed only on the affected parts of the target model. Advantageously, the incremental nature of this action identifies problems sooner, because the action can be run more often, since, given less input, it will not take as much time to complete. When problems are identified sooner, there is less opportunity for other code to become dependent on faulty behavior, and thus less chance that the fix for faulty behavior will break other code. Consequently, this incremental nature of the action performed results in reduced time and thus increases the efficiency of a developer or a development time.

In the rejection, the Examiner has made several assertions about the AAPA in order to support the rejection of the recited invention. For example, the Examiner asserts that AAPA discloses a model map by stating that the disclosed action of a file change in an object model in response to a change in a source model requires that the notify model must be mapped to the target model. However, Applicant does not recite a model map for mapping a notify model to a target model, but rather recites a model map for mapping notify <u>objects</u> of a notify model to associated target <u>objects</u> in the target model. There is nothing in the purported inherent teachings of a mapping of models in AAPA that discloses anything regarding the specific objects of the notify and target models. Rather, the example pointed to by the Examiner refers to a file change in one model resulting in modifications to another model. Applicant respectfully submits that this example is wholly silent regarding the objects of the notify and target models. As such,

Applicant fails to see how such a description offers any teaching or suggestion regarding the mapping of such objects. Accordingly, Applicant respectfully submits that AAPA fails to teach, show, or suggest the recited mapping of notify objects of a notify model to associated target objects of a target model.

Further, without teaching or suggesting the recited model mapping of objects, Applicant respectfully submits that there is nothing to teach or suggest an action operator for performing an action on one or more target objects in response to modification of a selected notify object, with the one or more target objects determined with reference to the model map. Again, the Examiner relies on a description of the AAPA that merely refers to modification of an object model in response to a file change in a source model but is silent regarding the modification of objects. In contrast, by utilizing the present invention, only the objects in the target model affected by the changes in the notify model are identified. Thus, the action (e.g., a validation check) is performed only on the affected parts of the target model. Applicant respectfully submits that the model modification of AAPA fails to teach, show, or suggest such object identification and action through the use of mapping, as occurs in the recited invention. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 102(a).

Additionally, given the deficiencies of AAPA to teach, show, or suggest the recited invention, Applicant respectfully submits that even the inclusion of the purported teachings of the cited art of Atkinson fail to overcome these deficiencies. Accordingly, Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. 103(a).
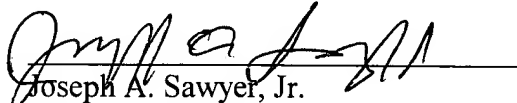
In view of the foregoing, Applicant respectfully submits that claims 1-27 are allowable over the cited art.

Applicant's attorney believes that this application is in condition for allowance. Should any unresolved issues remain, Examiner is invited to call Applicant's attorney at the telephone number indicated below.

Respectfully submitted,

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Date

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